

Line 7, please delete "magnetisation" and substitute therefor --magnetization--.

IN THE DRAWINGS:

Applicant submits herewith proposed amended Figures 1, 2, 3, 4 and 7 with changes indicated in red for the Examiner's approval. It is respectfully submitted that no new matter has been added.

REMARKS

Upon entry of the foregoing amendments, claims 1-22 are pending.

Applicant notes with appreciation the indicated allowability of claims 11-13 and 16.

The drawings stand objected to under 37 CFR §1.84(h)(5) because Figures 1, 2, 3, 4 and 7 show modified forms of construction in the same view. Additionally, the drawings stand objected to under 37 CFR §1.83(a) because they fail to show axially magnetized permanent magnets in the stator and in the rotor with two control windings in the stator as described in the specification on page 8, regarding Figure 7 (tenth embodiment disclosed with only nine embodiments shown in the drawings). Accordingly, Applicant submits herewith proposed amended Figures for the Examiner's approval with the proposed changes indicated in red. It is respectfully submitted that no new matter has been added.

The Examiner states that the title of the invention is not descriptive and thus requires a new title that is clearly indicative of the invention to which the claims are directed. Accordingly, Applicant has changed the title so that it reads in its entirety, Magnetically Journalled Rotational Arrangement Including A Rotor For Generating A Unipolar Bias Magnetic Flux.

The Abstract of the disclosure stands rejected because of the use of legal phraseology such as "means" and "comprises." Accordingly, Applicant has amended the Abstract to remove the terms as well as to correct several other minor errors discovered therein.

The specification has been amended to correct minor errors discovered therein and to add headings in accordance with preferred U.S. patent practice. It is respectfully submitted that no new matter has been added.

Claim 16 stands rejected under 35 USC §112, Second Paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. The Examiner points out that claim 16 is vague and indefinite because it is unclear whether a “disc rotor stator” is a rotor or a stator. Accordingly, Applicant has amended the claim to make it clear that it is a disc stator. Accordingly, it is respectfully requested that the rejection be withdrawn.

Claims 1, 8, 9, and 10 stand rejected under 35 USC §102(b) as being clearly anticipated by Nichols et al.

Claims 1, 8, 20 and 21 stand rejected under 35 USC §102(b) as being clearly anticipated by Schoeb et al.

Claims 2, 4 and 14 stand rejected under 35 USC §103(a) as being unpatentable over Nichols et al. and further in view of Lyman.

Claims 3, 5 and 15 stand rejected under 35 USC §103(a) as being unpatentable over Nichols et al. and Lyman, and further in view of Shimamoto.

Claims 6 and 7 stand rejected under 35 USC §103(a) as being unpatentable over Nichols et al., Lyman, and Shimamoto and further in view of Machino.

Claims 17-19 stand rejected under 35 USC §103(a) as being unpatentable over Nichols et al. in further view of German Patent No. 945183.

These rejections are respectfully traversed and reconsideration is respectfully requested.

As noted by the Examiner in the Office Action, Nichols discloses providing permanent magnets in the stator for providing a bias flux. Spatial modulation is generally effected by means of the geometry of the rotor, specifically by projections 18c (see Figure 4) and recesses between these projections. The generation of the bias in a flux, however, is performed in the stator. There is no suggestion at all with regard to an arrangement as recited in the claims of the present application, specifically to provide the means for the generation of the spatially modulated bias flux in the rotor. In contrast, Nichols explicitly discloses providing permanent magnets (generating the bias flux) in the stator, since in the stator, the problem of providing sufficient space for the respective magnets is generally not of major importance.

In addition, providing the means for the generation of spatially modulated bias flux (e.g., the permanent magnets) in the rotor implies that the stray flux or leakage flux is lower than if the means for the generation of the bias flux were provided in the stator. Accordingly, providing the means for the generation of the spatially modulated bias flux of equal fuel strength in the rotor results in a higher driving torque when compared to an embodiment for which the means of a generation of bias flux of equal fuel strength are provided in the stator.

With regard to Schoeb, Schoeb discloses providing permanent magnets in the rotor in order to generate a bias magnetic flux (see Figure 11, permanent magnet 28). However, Schoeb does not disclose any means on the rotor for generating a spatially modulated bias flux in the rotor. In fact, it is respectfully submitted that the Examiner is combining the embodiments of Figure 11 and Figure 22 of the Schoeb reference since in numbered paragraph 12 of the Office Action the Examiner states that the disc rotor 14 has a permanent magnet 28 (which is only shown in Figure 11), while in Figure 22, the rotor 14 has no such permanent magnet 28. The Examiner then bases his argument on permanent magnets 55, which are only disclosed in Figure 22. However, in the embodiment according to Figure 22 of Schoeb, permanent magnets 55 are arranged in the stator and the rotor does not have any permanent magnet. Thus, the rotor has no means for generating any bias flux at all. In contrast to the embodiment according to Figure 22, the embodiment according to Figure 11 has a ring-shaped permanent magnet 28 in the rotor. However, neither the permanent magnet itself nor the rotor generates a spatially modulated bias flux. Accordingly, it is respectfully submitted that Schoeb does not anticipate the present invention as recited in amended claim 1.

Since neither Nichols or Schoeb, either alone or in combination, teach, disclose or even suggest that the rotor has means for generating a spatially modulated bias flux, it is respectfully submitted that a rotational arrangement as recited in claim 1 of the present application is allowable. Indeed, since none of the references even suggests that the permanent magnets may be provided in the rotor in a manner such that they generate a spatially modulated bias flux in the rotor, no combination of the presently cited references can render the claimed invention obvious.

Claims 2-22 depend, either directly or indirectly on claim 1 and therefore, they are allowable for at least the reasons claim 1 is allowable. These claims further define and augment the features of Applicant's invention.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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